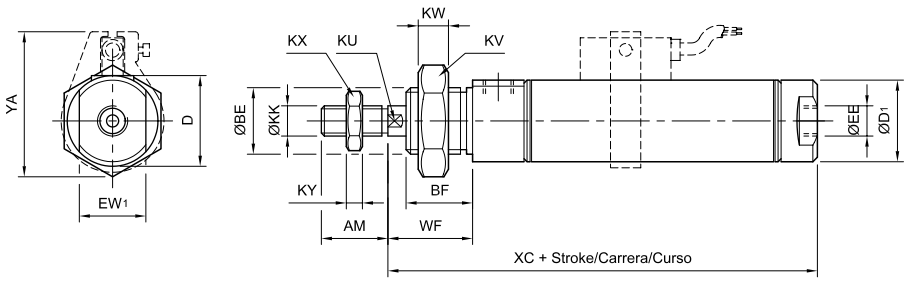
Type	Single and double acting pneumatic micro-cylinders, with or without magnetic piston
Standards	Main dimensions according to **ISO 6432** - CETOP RP 52 P
Cushioning	With elastic ring in end position
Rated temperature	-20...80 °C (-4...176 °F)
Fluid	Filtered compressed air with or without lubrication
Working pressure	0,5...10 bar (7,3...145 psi)
Proximity switch	See page 1.2.2.2 See page 1.2.2.1
Mounting and accessories	Each micro-cylinder includes a mounting nut and a rod nut
Materials	Aluminum end caps, stainless steel tube and piston rod, PUR seals

	Single acting	Single acting rear spring	Double acting
8	0.001.510.---		0.001.530.---
10	0.002.510.---		0.002.530.---
12	0.003.510.---	0.003.520.---	0.003.530.---
16	0.004.510.---	0.004.520.---	0.004.530.---
20	0.005.510.---	0.005.520.---	0.005.530.---
25	0.006.510.---	0.006.520.---	0.006.530.---

Strokes Single acting	Strokes Double acting	Min. stroke with 1 sensor	Min. stroke with 2 sensors
10, 25, 50	10, 25, 40, 50, 80, 100	15	25
10, 25, 50	10, 25, 40, 50, 80, 100	5	20
10, 25, 50	10, 25, 40, 50, 80, 100, 125, 160, 200	15	25
10, 25, 50	10, 25, 40, 50, 80, 100, 125, 160, 200	5	20
10, 25, 50	10, 25, 40, 50, 80, 100, 125, 160, 200, 250, 300	5	20
10, 25, 50	10, 25, 40, 50, 80, 100, 125, 160, 200, 250, 300, 400, 500	5	20

	Single acting magnetic piston	Single acting rear spring magnetic piston	Double acting magnetic piston
8	0.021.710.---		0.021.730.---
10	0.022.710.---		0.022.730.---
12	0.023.710.---	0.023.720.---	0.023.730.---
16	0.024.710.---	0.024.720.---	0.024.730.---
20	0.025.710.---	0.025.720.---	0.025.730.---
25	0.026.710.---	0.026.720.---	0.026.730.---

When ordering replace dashes by stroke value in mm, completing with zeros at the left if less than 3 digits.
i.e.: a cylinder 0.026.710.- - - with stroke 50 mm must be ordered as 0.026.710.050
Strokes in table are according to ISO 4393 standard. However other strokes can be ordered on request.



Ø	AM	ØBE	BF	D	D1	EE	EW_1	KK	KU	KV	KW	KX	KY	WF	XC	XC_2	YA
8	12	M12 x 1,25	12	15	12	M5 x 0,8	10	M4 x 0,7		19	7	7	3,2	16	62		28
10	12	M12 x 1,25	12	15	12	M5 x 0,8	10	M4 x 0,7		19	7	7	3,2	16	62		30
12	16	M16 x 1,5	17	20	18	M5 x 0,8	15	M6 x 1	5	24	8	10	5	22	72	97	32
16	16	M16 x 1,5	17	20	18	M5 x 0,8	15	M6 x 1	5	24	8	10	5	22	78	104	36
20	20	M22 x 1,5	18	27	27	G 1/8"	22	M8 x 1,25	7	32	10	13	5	24	88,5	118	40
25	22	M22 x 1,5	22	27	27	G 1/8"	22	M10 x 1,25	9	32	10	17	6	28	93	124,5	45

Type	Single and double acting pneumatic micro-cylinders, with or without magnetic piston
Standards	**ISO 6432** - CETOP RP 52 P
Cushioning	Elastic ring or adjustable cushioning in end position
Rated temperature	-20...80 °C (-4...176 °F)
Fluid	Filtered compressed air with or without lubrication
Working pressure	0,5...10 bar (7,3...145 psi)
Proximity switch	See page 1.2.2.2 See page 1.2.2.1
Mounting and accessories	Each micro-cylinder includes a mounting nut and a rod nut
Materials	Aluminum end caps, stainless steel tube and piston rod, PUR seals

	Single acting	Single acting rear spring	Double acting
8	0.001.010.---		0.001.030.---
10	0.002.010.---		0.002.030.---
12	0.003.010.---	0.003.020.---	0.003.030.---
16	0.004.010.---	0.004.020.---	0.004.030.---
20	0.005.010.---	0.005.020.---	0.005.030.---
25	0.006.010.---	0.006.020.---	0.006.030.---

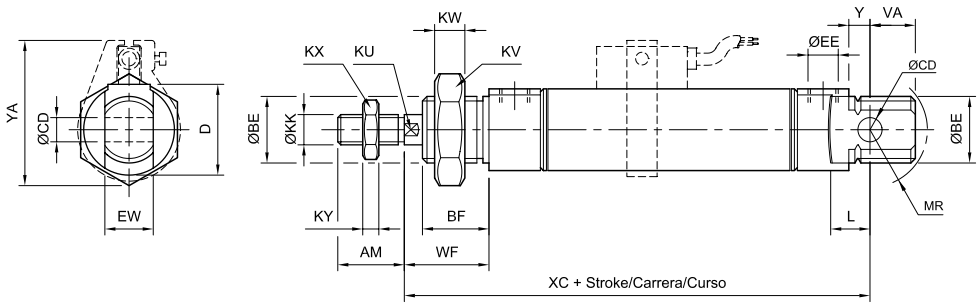
Strokes single acting	Strokes double acting
10, 25, 50	10, 25, 40, 50, 80, 100
10, 25, 50	10, 25, 40, 50, 80, 100
10, 25, 50	10, 25, 40, 50, 80, 100, 125, 160, 200
10, 25, 50	10, 25, 40, 50, 80, 100, 125, 160, 200
10, 25, 50	10, 25, 40, 50, 80, 100, 125, 160, 200, 250, 30
10, 25, 50	10, 25, 40, 50, 80, 100, 125, 160, 200, 250, 300, 400, 500

	Single acting magnetic piston	Single acting rear spring magnetic piston	Double acting magnetic piston	Double acting with cushioning and magnetic piston
8	0.021.210.---		0.021.230.---	
10	0.022.210.---		0.022.230.---	
12	0.023.210.---	0.023.220.---	0.023.230.---	
16	0.024.210.---	0.024.220.---	0.024.230.---	0.024.260.---
20	0.025.210.---	0.025.220.---	0.025.230.---	0.025.260.---
25	0.026.210.---	0.026.220.---	0.026.230.---	0.026.260.---

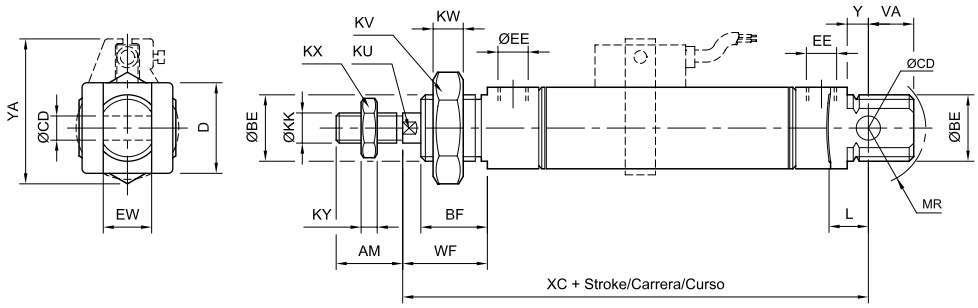
Min. stroke with 1 sensor	Min. stroke with 2 sensors
20	30
20	20
15	25
5	20
5	20
5	20

When ordering replace dashes by stroke value in mm, completing with zeros at the left if less than 3 digits.
i.e.: a cylinder 0.026.210.- - - with stroke 50 mm must be ordered as 0.026.210.050
Strokes in table are according to ISO 4393 standard.
However other strokes can be ordered on request.

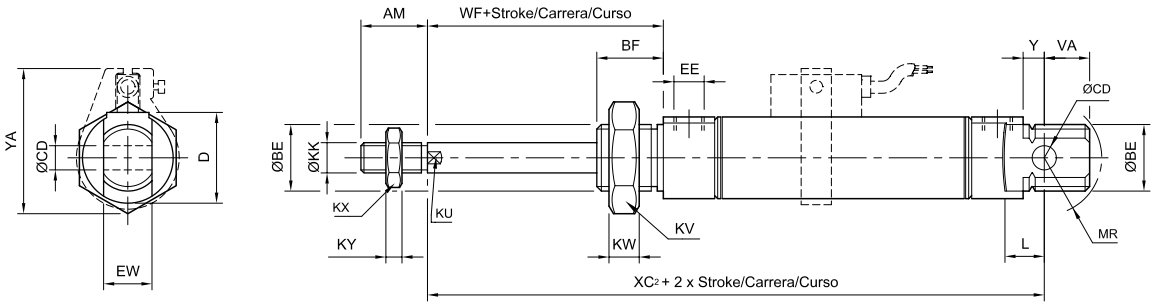
Single or double acting



Double acting with adjustable cushioning



Single acting with rear spring return



Ø	AM	ØBE	BF	D	ØCD	EE	EW	ØKK	KU	KV	KW	KX	KY	L	MR	VA	WF	XC	XC_2	Y	YA
8	12	M12 x 1,25	12	15	4	M5 x 0,8	8	M4 x 0,7		19	7	7	3,2	6	12	10	16	64		2	28
10	12	M12 x 1,25	12	15	4	M5 x 0,8	8	M4 x 0,7		19	7	7	3,2	6	12	10	16	64		2	30
12	16	M16 x 1,5	17	20	6	M5 x 0,8	12	M6 x 1	5	24	8	10	5	9	13	14	22	75	100	3	32
16	16	M16 x 1,5	17	20	6	M5 x 0,8	12	M6 x 1	5	24	8	10	5	9	15,5	13	22	82	108	4	36
20	20	M22 x 1,5	18	27	8	G 1/8"	16	M8 x 1,25	7	32	10	13	5	12	17,5	15	24	95	125	3	40
25	22	M22 x 1,5	22	27	8	G 1/8"	16	M10 x 1,25	9	32	10	17	6	12	19	15	28	104	135,5	7	45

Type	Double acting double-ended rod pneumatic micro-cylinders, with magnetic piston
Standards	Main dimensions according to **ISO 6432** - CETOP RP 52 P
Cushioning	Elastic ring or adjustable cushioning in end position
Rated temperature	-20...80 °C (-4...176 °F)
Fluid	Filtered compressed air with or without lubrication
Working pressure	0,5...10 bar (7,3...145 psi).
Proximity switch	See page 1.2.2.2 See page 1.2.2.1
Mounting and accessories	Each micro-cylinder includes a mounting nut and a rod nut
Materials	Aluminum end caps, stainless steel tube and piston rod, PUR seals

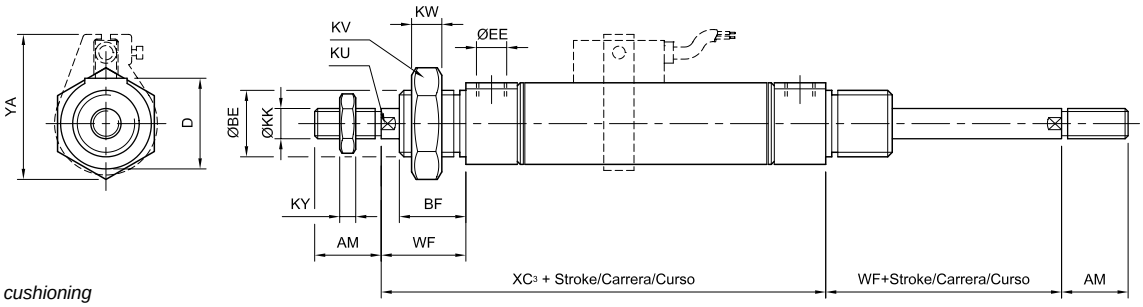
	Double acting	Double acting with cushioning
16	0.024.330.---	0.024.330.---
20	0.025.330.---	0.025.330.---
25	0.026.330.---	0.026.330.---

Strokes
10, 25, 40, 50, 80, 100, 125, 160
10, 25, 40, 50, 80, 100, 125, 160, 200
10, 25, 40, 50, 80, 100, 125, 160, 200, 250, 300

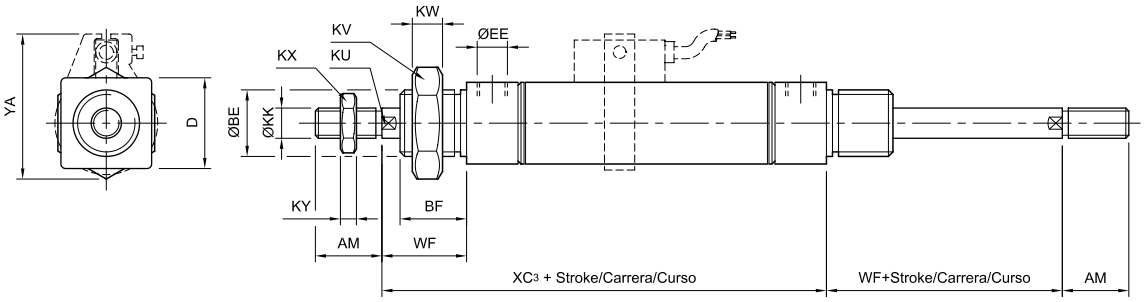
When ordering replace dashes by stroke value in mm, completing with zeros at the left if less than 3 digits.
i.e.: a cylinder 0.026.330.- - - with stroke 50 mm must be ordered as 0.026.330.050
Strokes in table are according to ISO 4393 standard. However other strokes can be ordered on request.

- 5 mm minimum stroke with 1 sensor
- 20 mm minimum stroke with 2 sensors

Without adjustable cushioning



With adjustable cushioning

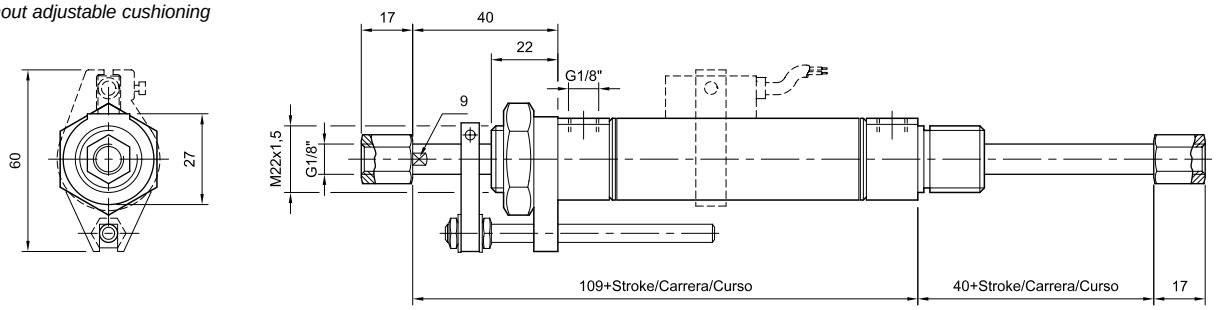


Ø	AM	ØBE	BF	D	EE	ØKK	KU	KV	KW	KX	KY	WF	XC_3	YA
16	16	M16 x 1,5	17	20	M5 x 0,8	M6 x 1	5	24	8	10	5	22	78	36
20	20	M22 x 1,5	18	27	G 1/8"	M8 x 1,25	7	32	10	13	5	24	92	40
25	22	M22 x 1,5	22	27	G 1/8"	M10 x 1,25	9	32	10	17	6	28	97	45

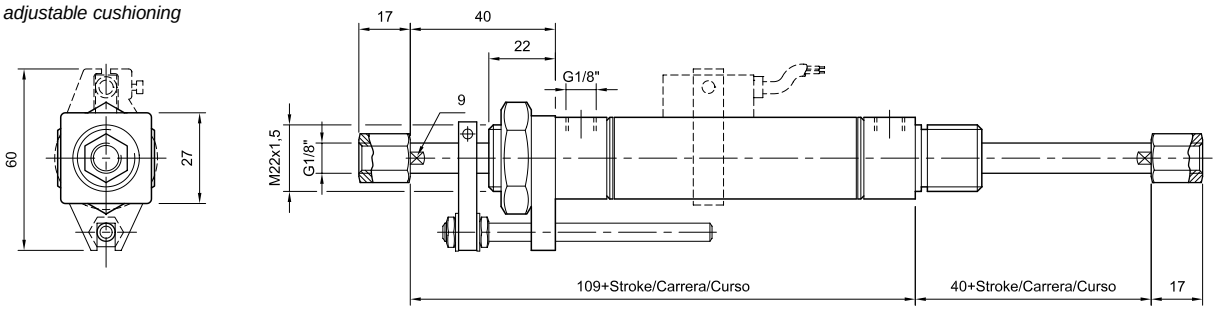
Type	Double acting double-ended rod pneumatic micro-cylinders, hollow piston rod with connection ports on both ends and incorporated non-rotating guide and magnetic piston
Cushioning	Elastic ring or adjustable cushioning in end position
Piston diameter	25 mm
Strokes	10, 25 and 50 mm (consult for other strokes) Min. stroke with 1 sensor 5 mm; with 2 sensors 20 mm
Port sizes	Air supply: G 1/8" Rod ends: G 1/8"
Rated temperature	-20...80 °C (-4...176 °F)
Fluid	Filtered compressed air with or without lubrication
Working pressure	0,5...10 bar (7,3...145 psi)
Proximity switch	See page 1.2.2.2
Mounting and accessories	See page 1.2.2.1
Materials	Aluminum end caps, stainless steel tube and piston rod, PUR seals

Ø	Stroke	Double acting	Double acting with cushioning
25	10	0.026.440.010	0.026.450.010
25	25	0.026.440.025	0.026.450.025
25	50	0.026.440.050	0.026.450.050

Without adjustable cushioning



With adjustable cushioning

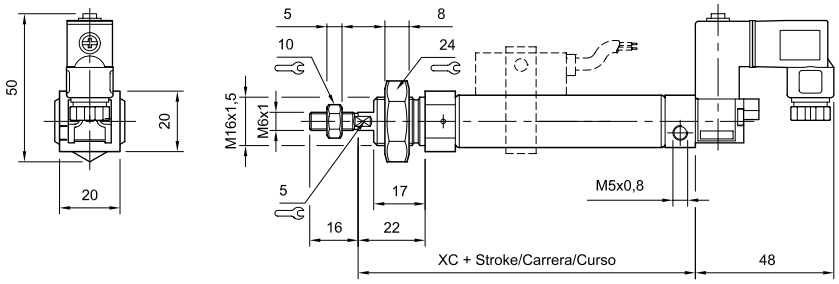


Type	Single acting pneumatic micro-cylinder, front end spring and magnetic piston, with built-in 3/2 solenoid valve			
Cushioning	Elastic ring or adjustable cushioning in end position			
Mounting	Front mounting according to ISO 6432			
Piston diameter (mm)	12	16	20	25
Port sizes	M5x0,8	M5x0,8	G1/8"	G1/8"
Strokes	10, 25 and 50 mm (consult for other strokes)			
Rated temperature	-5...50 °C (23...122 °F)			
Fluid	Filtered compressed air with or without lubrication			
Working pressure	1...8 bar (Ø12 / 16); 0,5...10 bar (Ø20 / 25)			
Proximity switch	See Page 1.2.2.2			
Mounting accessories	See Page 1.2.2.1			
Materials	Aluminum end caps, stainless steel tube and piston rod, PUR seals (for solenoid characteristics see chapter 5)			

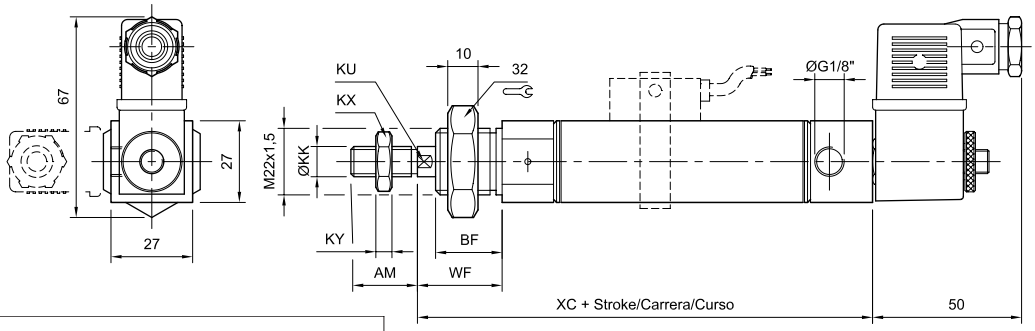
Ø	Strokes 10	25	50
12	0.023.690.010/---	0.023.690.025/---	0.023.690.050/---
16	0.024.690.010/---	0.024.690.025/---	0.024.690.050/---
20	0.025.690.010/---	0.025.690.025/---	0.025.690.050/---
25	0.026.690.010/---	0.026.690.025/---	0.026.690.050/---

AM	BF	ØKK	KU	KX	KY	WF	XC	Strokes min. with 1 sensor	Strokes min. with 2 sensors
-	-	-	-	-	-	-	72	15	25
-	-	-	-	-	-	-	78	5	20
20	18	M8x1,25	7	13	5	24	97	5	20
22	22	M10x1,25	9	17	6	28	101,5	5	20

Ø12 - Ø16



Ø20 - Ø25



Voltage	Ø12 -16 Additional code / ---	Ø20 - 25 Additional code / ---
220V 50Hz - 240V 60Hz	901	101
110V 50Hz - 120V 60Hz	902	102
48V 50Hz - 48V 60Hz	937	137
24V 50Hz - 24V 60Hz	903	103
12V 50Hz - 12V 60Hz		104
220V 60Hz		105
110V 60Hz		106
190 V DC		109
110 V DC		110
48 V DC		111
24 V DC	912	112
12 V DC		113

To specify solenoid voltage, dashes must be replaced by values in the table. i.e.: a cylinder 0.023.690.010/--- with voltage 220V 50Hz, should be ordered as 0.023.690.010/901

MiCRO

Micro-Cylinders with solenoid valve

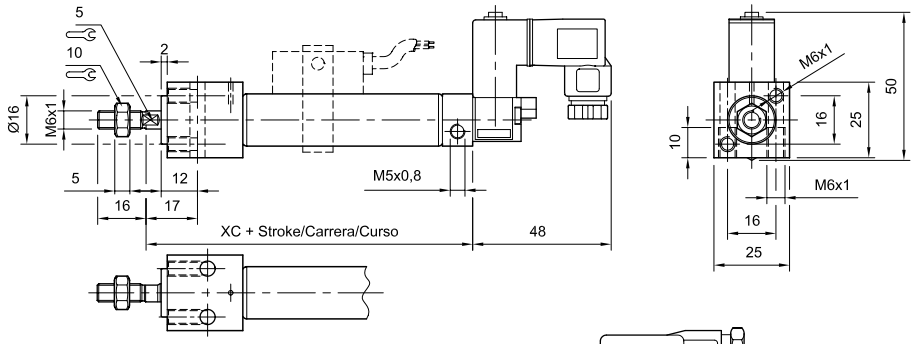
MD 8-NG series with square end cover

Type	Single acting pneumatic micro-cylinder, front end spring and magnetic piston, with built-in 3/2 solenoid valve
Cushioning	Elastic ring or adjustable cushioning in end position
Mounting	Front mounting (see drawing)
Piston diameter (mm)	12 16 20 25
Port sizes	M5x0,8 M5x0,8 G1/8" G1/8"
Strokes	10, 25 and 50 mm (consult for other strokes)
Rated temperature	-5...50 °C (23...122 °F)
Fluid	Filtered compressed air with or without lubrication
Working pressure	1...8 bar (Ø12 / 16); 0,5...10 bar (Ø20 / 25)
Proximity switch	See Page 1.2.2.2
Materials	Aluminum end caps, stainless steel tube and piston rod, PUR seals (for solenoid characteristics see chapter 5)

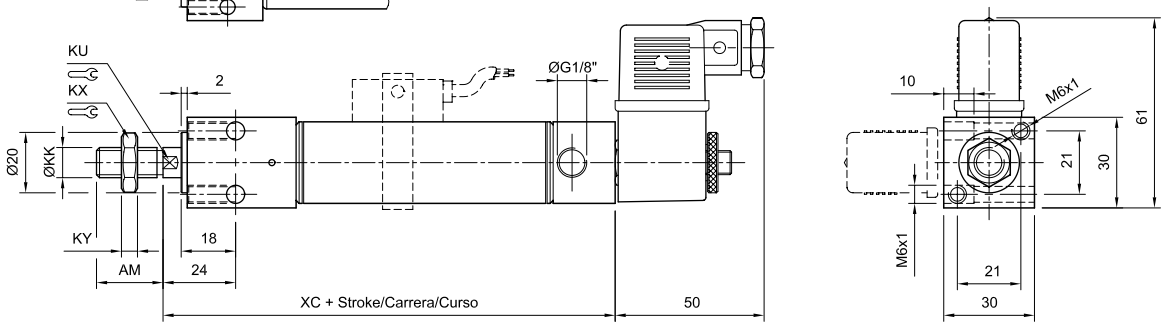
Ø	Strokes 10	25	50
12	0.023.650.010/---	0.023.650.025/---	0.023.650.050/---
16	0.024.650.010/---	0.024.650.025/---	0.024.650.050/---
20	0.025.650.010/---	0.025.650.025/---	0.025.650.050/---
25	0.026.650.010/---	0.026.650.025/---	0.026.650.050/---

AM	ØKK	KU	KX	KY	XC	Min. stroke with 1 sensor	Min. stroke with 2 sensors
-	-	-	-	-	72	15	25
-	-	-	-	-	78	5	20
20	M8x1,25	7	13	5	97	5	20
22	M10x1,25	9	17	6	101,5	5	20

Ø12 - Ø16



Ø20 - Ø25

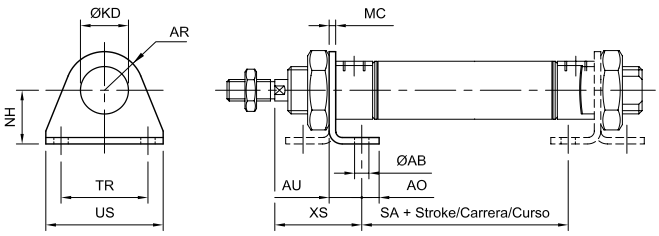


Voltage	Ø12 -16 Additional code / ---	Ø20 - 25 Additional code / ---
220V 50Hz - 240V 60Hz	901	101
110V 50Hz - 120V 60Hz	902	102
48V 50Hz - 48V 60Hz	937	137
24V 50Hz - 24V 60Hz	903	103
12V 50Hz - 12V 60Hz		104
220V 60Hz		105
110V 60Hz		106
190 V DC		109
110 V DC		110
48 V DC		111
24 V DC	912	112
12 V DC		113

To specify solenoid voltage, dashes must be replaced by values in the table. i.e.: a cylinder 0.023.650.010/--- with voltage 220V 50Hz, should be ordered as 0.023.650.010/901

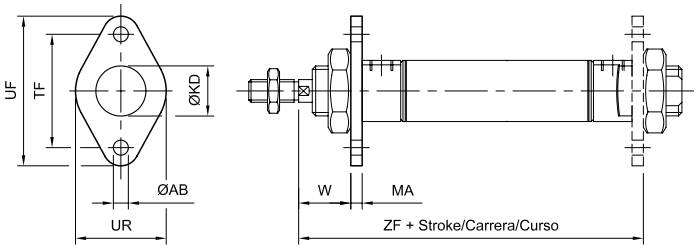
Foot mounting

Ø	MiCRO
8-10	0.001.000.001
12-16	0.003.000.001
20-25	0.005.000.001



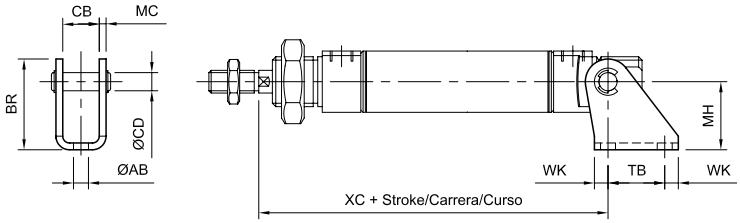
Flange mounting

Ø	MiCRO
8-10	0.001.000.003
12-16	0.003.000.003
20-25	0.005.000.003

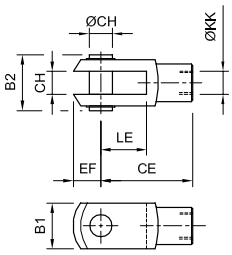


Clevis foot mounting

Ø	MiCRO
8-10	0.001.000.006
12-16	0.003.000.006
20-25	0.005.000.006

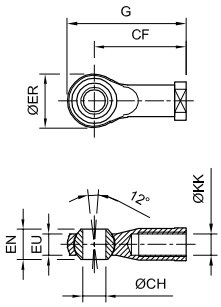


Rod clevis



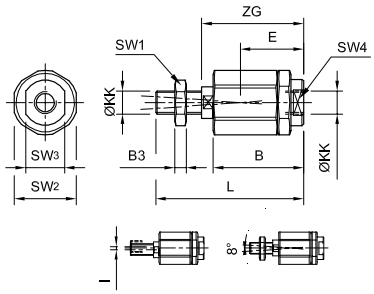
Ø	MiCRO
8-10	0.001.000.010
12-16	0.003.000.010
20	0.005.000.010
25	0.007.000.010

Rod eye



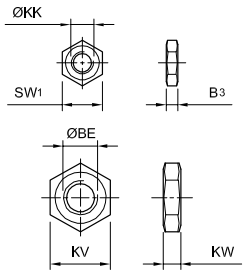
Ø	MiCRO
25	0.007.000.012

Self aligning rod coupler



Ø	MiCRO
8-10	0.001.000.023
12-16	0.003.000.023
20	0.005.000.023
25	0.007.000.023

End cover and piston rod nuts



Ø	MiCRO
M 4 x 0,7	0.001.000.011
M 6 x 1	0.003.000.011
M 8 x 1,25	0.005.000.011
M 10 x 1,25	0.007.000.011
M 12 x 1,25	0.008.000.011
M 16 x 1,5	0.009.000.011
M 22 x 1,5	0.006.000.011

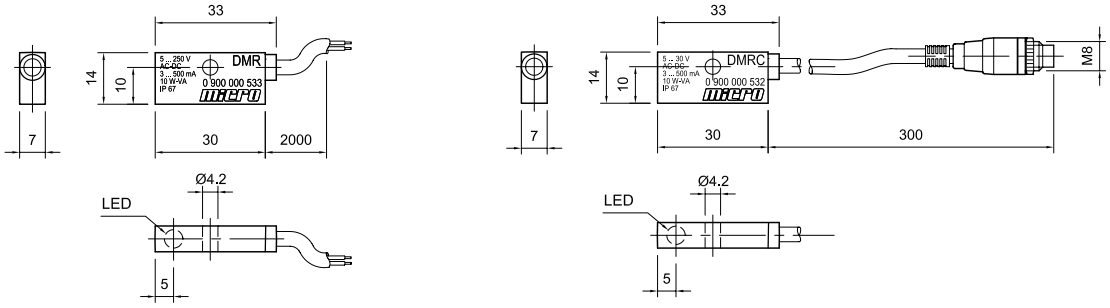
Ø	ØAB	AO	AR	AU	B	BE	B_1	B_2	B_3	BR	CB	ØCD	CE	CF	CH	E	EF	EN	ER	EU	G	I	KD	ØKK
8-10	4,5	5	11	10	20	M12	8	12	3,2	25	8,1	4	16		4	16	5					1	12,1	M 4 x 0,7
12-16	5,5	6	13,5	12,5	21,5	M16	12	17	5	32,5	12,1	6	24		6	15,5	7					1	16,1	M 6 x 1
20	6,6	8	18	15	33	M22	16	21	5	40	16,1	8	32		8	20,5	10					1	22,1	M 8 x 1,25
25	6,6	8	18	15	46	M22	20	25	6	40	16,1	8	40	43	10	31	12	14	28	10,5	57	2	22,1	M 10 x 1,25

Ø	KV	KW	L	LE	MA	MC	MH	NH	SA	SW_1	SW_2	SW_3	SW_4	TB	TF	TR	UF	UR	US	W	WK	XC	XS	ZF	ZG
8-10	19	7	33	8	3	2	20	16	30	7	12,7	6	4	14	30	25	40	25	35	13	4	64	24	65	25
12	24	8	37	12	4	2,5	25	20	26	10	14,5	7	5	20	40	32	52	30	42	18	5	75	32	72	25
16	24	8	37	12	4	2,5	25	20	36	10	14,5	7	5	20	40	32	52	30	42	18	5	82	32	82	25
20	32	10	49	16	5	3	30	25	42	13	19	11	7	25	50	40	66	40	54	19	6	95	36	95	34
25	32	10	69,5	20	5	3	30	25	45	17	32	19	12	25	50	40	66	40	54	23	6	104	40	102	49,5

Proximity switch DMR series

Type	Voltage	Current	Power	LED	Degree of protection	MiCRO
DMR	5...250 V AC/DC	3...500 mA	10 W/VA	●	IP 67	**0.900.000.533**
DMRC	5...30 V AC/DC	3...500 mA	10 W/VA	●	IP 67	**0.900.000.532**
2 m cable lenght with female M8x1 connector						**0.900.000.531**

DMR model has 3 m lenght cable; DMRC model has 300mm lenght cable with M8x1 male connector.
With polarity reversal protection (the sensor detects but the LED does not light).



Proximity switch mounting bracket

Ø	MiCRO
8	0.021.000.017
10	0.022.000.017
12	0.023.000.017
16	0.024.000.017
20	0.025.000.017
25	0.026.000.017

Type ..... Clamping device for ISO 6432 standard cylinders

Locking force ..... Guaranted by an internal spring, acts by abscense of pneumatic signal. The clamping force is released by applying air pressure

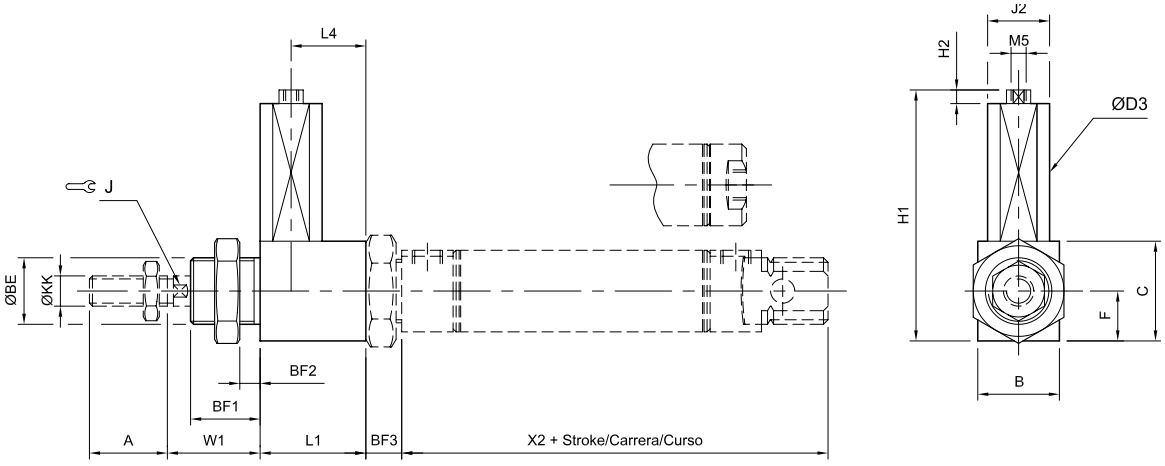
Working pressure ..... 4,5...10 bar

Mounting ..... Compatible thread with series mounting accessories

IMPORTANT ..... When ordering, consider that the cylinder has to be made specially whith an extended piston rod.
The cylinder must be ordered separatelly by its own code.
We advice to order both components already mounted.

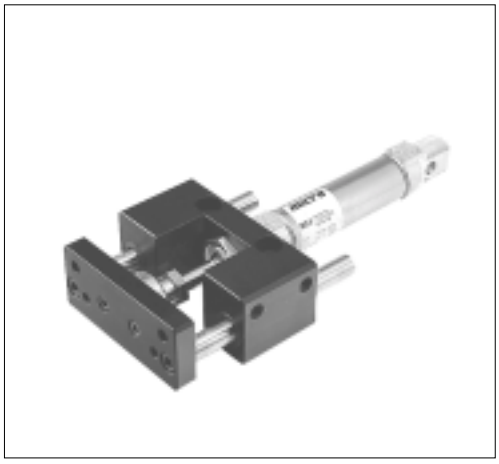
Ø	MiCRO	Clamping force (N)
8	0.022.000.034	60
10	0.022.000.034	60
12	0.024.000.034	180
16	0.024.000.034	180
20	0.025.000.034	250
25	0.026.000.034	350

Advantages:
- Automatic secure clamping in case of power failure. The clamping force is always greater than the cylinder force.
- Holding and precision clamping over a long period of time even if changing loads, fluctuation in the operating pressure or leckage.
- During clamping, it is recommended that air pressure be equal in both cylinder chambers.
- It is recommended to reduce piston rod speed before acting the clamping unit.

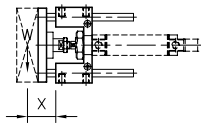


Ø	A	B	ØBE	BF_1	BF_2 max.	BF_3 min.	BF_3 max.	C	$ØD_3$	F	H_1	H_2	J	J_2	ØKK	L_1	L_4	W_1	X_2
8	12	14,5	M12 x 1,25	12	3,8	6	6,8	14,5	16	7,25	56	4		14,5	M4 x 0,7	27	19	17	58
10	12	14,5	M12 x 1,25	12	3,8	6	6,8	14,5	16	7,25	56	4		14,5	M4 x 0,7	27	19	17	58
12	16	20	M16 x 1,5	12	4,5	8,5	9,3	20	20	10	64,5	4	5	18,5	M6 x 1	30	21	22,5	67
16	16	20	M16 x 1,5	12	4,5	8,5	9,3	20	20	10	64,5	4	5	18,5	M6 x 1	30	21	22,5	73
20	20	27	M22 x 1,5	23	11,5	9,8	10,6	33	22	16,5	78,5	4,5	7	20,5	M8 x 1,25	35	24	27,5	86
25	22	27	M22 x 1,5	23	11,5	12,8	13,6	33	22	16,5	78,5	4,5	9	20,5	M10 x 1,25	35	24	29,5	91

Type	The guide unit is used to secure ISO 6432 standard cylinders against piston rod rotation and from powerful torques. It offers highly precise guidance when conveying work pieces and for other uses (handling technology)
Guide	Self lubricated brass bushings with cleaning rod wipers (option with ball bearing)
Mounting	Mounting holes in four faces
Maximum stroke	250 mm
Rod connection	Floating with axial compensation
Materials	Anodized alluminum housing, chrome plated steel guide bars (tempered steel for ball bearing version), brass guide bushings
IMPORTANT	The cylinder must be ordered separatelly by its own code

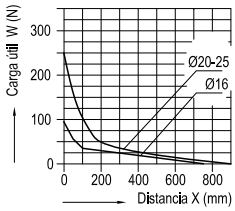


When ordering replace dashes by stroke value in mm, completing with zeros at the left if stroke is less than 3 digits. i.e.: a C-guide with brass bushings for a cylinder 0.026.230.100 must be ordered as 0.026.980.100

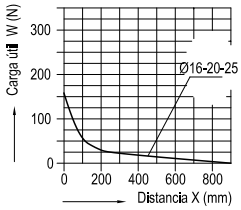


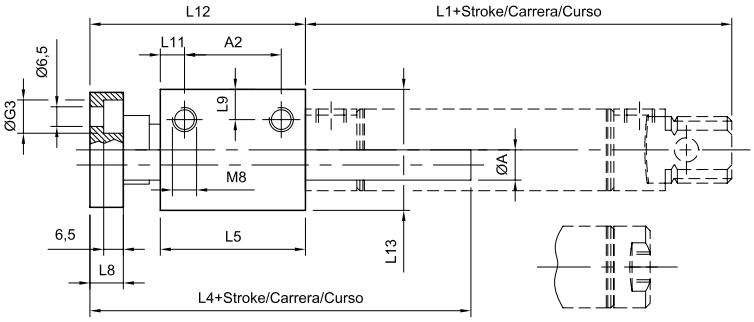
Ø	Brass bushing guide	Ball bearing guide
16	0.024.980.---	0.024.990.---
20	0.025.980.---	0.025.990.---
25	0.026.980.---	0.026.990.---

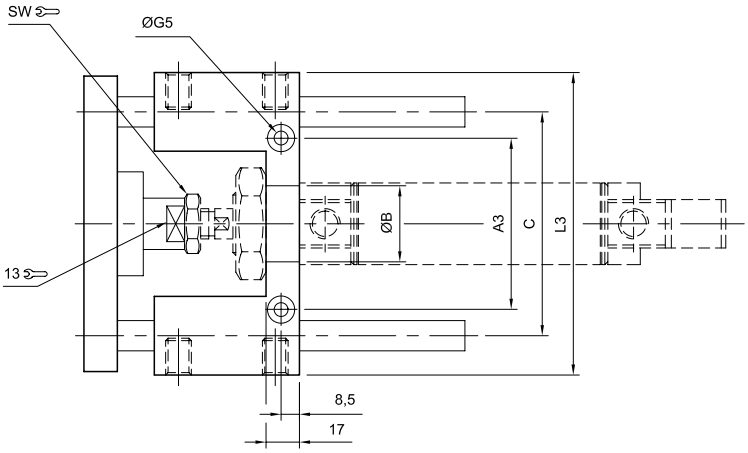
Brass bushing C guides

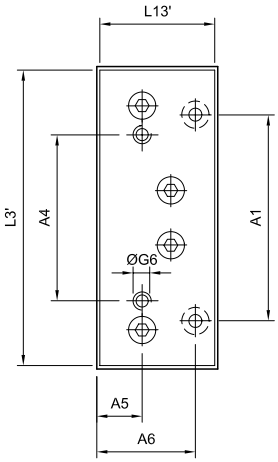


Ball bearing C guides









Ø	ØA	A_1	A_2	A_3	A_4	A_5	A_6	ØB	C	G_3	G_5	G_6	L_1	L_3	L_3'	L_4	L_5	L_8	L9	L_{11}	L_{12} min	L_{12} max	L_{13}	L_{13}'	SW
16	10	60	27	38	45	13,5	28,5	16	63	10,5	7	M5	73	90	85	75	44	10	8	8,5	60	62	39	34	10
20	12	70	32	46,5	55	15	30	22	74	11	9	M6	86	100	90	77	48	12	10	8	62	67	40	38	13
25	12	70	32	46,5	55	15	30	22	74	11	9	M6	91	100	90	83	48	12	10	8	67	71	40	38	17

Type	Single and double acting pneumatic cylinders, with or whithout adjustable cushioning, with or without magnetic piston
Standards	**VDMA 24562** - ISO 6431
Rated temperature	-20...80 °C (-4...176 °F)
Fluid temperature	max. 80 °C (176 °F)
Fluid	Filtered compressed air with or without lubrication
Working pressure	0,5...10 bar (7,3...145 psi)
Special versions	High temperature - Non-corrosive coating - Stainless steel rod
Materials	Aluminum pressure die cast end caps and piston, hard chromed SAE 1040 steel rod, hard anodized profiled aluminum tube (Ø200 and 250 cylindrical aluminum tube with tie rods), PUR seals (NBR for Ø125 to 250), Piston guide in acetal resin (NBR for Ø200 and 250)

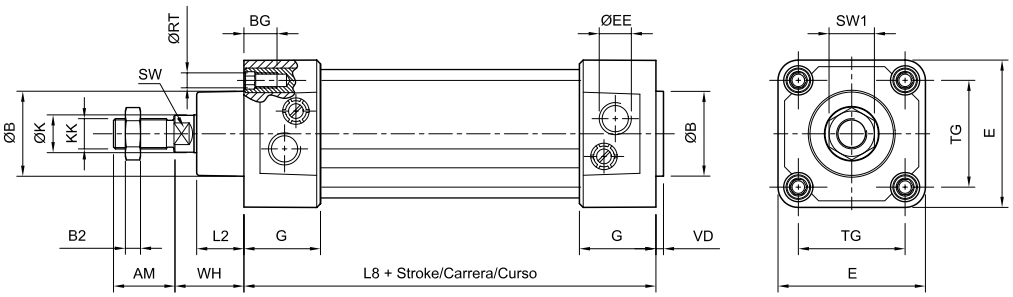
Double acting cylinders

	Non-magnet non-cushioning	Non-magnet with cushioning	With magnet non-cushioning	With magnet with cushioning	Strokes without cushioning	Strokes with double cushioning
32	0.047.03-.---	0.047.06-.---	0.047.23-.---	0.047.26-.---	25,50	80,100,125,160,200
40	0.048.03-.---	0.048.06-.---	0.048.23-.---	0.048.26-.---	25,50,80	100,125,160,200
50	0.049.03-.---	0.049.06-.---	0.049.23-.---	0.049.26-.---	50,80	100,125,160,200
63	0.050.03-.---	0.050.06-.---	0.050.23-.---	0.050.26-.---	50,80	100,125,160,200
80	0.051.03-.---	0.051.06-.---	0.051.23-.---	0.051.26-.---	50,80	100,125,160,200
100	0.052.03-.---	0.052.06-.---	0.052.23-.---	0.052.26-.---		100,125,160,200
125	0.033.03-.---	0.033.06-.---	0.033.23-.---	0.033.26-.---		100,200
160	0.034.03-.---	0.034.06-.---	0.034.23-.---	0.034.26-.---		100,200
200		0.035.06-.---		0.035.26-.---		
250		0.036.06-.---		0.036.26-.---		

When ordering replace dashes by stroke value in mm, completing with zeros at the left if less than 4 digits.
i.e.: a cylinder 0.047.03 -.- - - with stroke 50 mm must be ordered as 0.047.030.050
Strokes in table are according to ISO 4393 standard. However other strokes can be ordered on request.

Tube sections

Ø32...Ø100 *Ø125...Ø160* *Ø200...Ø250*



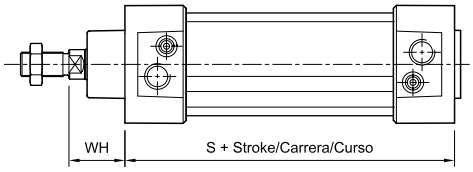
Ø	AM	ØB	BG	B_2	ØEE	E	G	ØK	ØKK	L_2	L_8	ØRT	SW	SW_1	TG	VD	WH
32	22	30	17,5	5	G 1/8"	48	29	12	M 10 x 1,25	18	94	M6 x 1	10	16	32,5	4	26
40	24	35	17,5	6	G 1/4"	55	32,5	16	M 12 x 1,25	20	105	M6 x 1	13	18	38	4	30
50	32	40	17,5	8	G 1/4"	65	33	20	M 16 x 1,5	25	106	M8 x 1,25	16	24	46,5	4	37
63	32	45	17,5	8	G 3/8"	78	40,5	20	M 16 x 1,5	25	121	M8 x 1,25	16	24	56,5	4	37
80	40	45	18,5	10	G 3/8"	96	42	25	M 20 x 1,5	32	128	M10 x 1,5	21	30	72	4	46
100	40	55	18,5	10	G 1/2"	116	45	25	M 20 x 1,5	37	138	M10 x 1,5	21	30	89	4	51
125	54	60	27,5	12	G 1/2"	140	55	32	M 27 x 2	45	160	M12 x 1,75	27	41	110	6	65
160	72	65	34	18	G 3/4"	180	58	40	M 36 x 2	60	180	M16 x 2	36	50	140	6	80
200	72	75	23	18	G 3/4"	220	45	40	M 36 x 2	60	180	M16 x 2	36	55	175	7	95
250	84	90	27	21	G 1"	280	53	50	M 42 x 2	70	200	M20 x 2,5	46	65	220	10	105

Single acting cylinders

Without magnetic piston

Ø	Front spring	Rear spring
32	0.047.010.0--	0.047.020.0--
40	0.048.010.0--	0.048.020.0--
50	0.049.010.0--	0.049.020.0--
63	0.050.010.0--	0.050.020.0--

WH	S
26	94
30	105
37	106
37	121



With magnetic piston

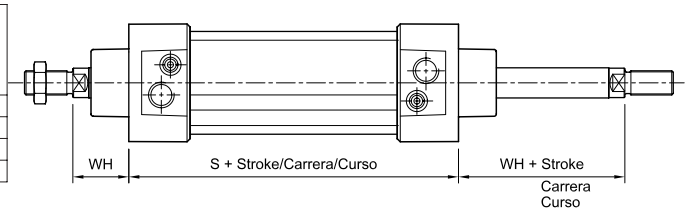
Ø	Front spring	Rear spring
32	0.047.210.0--	0.047.220.0--
40	0.048.210.0--	0.048.220.0--
50	0.049.210.0--	0.049.220.0--
63	0.050.210.0--	0.050.220.0--

Standard strokes: 25 and 50 mm.
Other strokes up to 50 mm on request.

Double ended rod single acting cylinders

Ø	Non-magnet	With magnet
32	0.047.110.0--	0.047.310.0--
40	0.048.110.0--	0.048.310.0--
50	0.049.110.0--	0.049.310.0--
63	0.050.110.0--	0.050.310.0--

WH	S
26	94
30	105
37	106
37	121

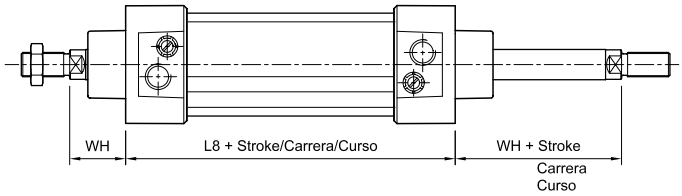


Standard strokes: 25 and 50 mm.
Other strokes up to 50 mm on request.

Double ended rod double acting cylinders

Without magnetic piston

Ø	Non-cushioning	With cushioning
32	0.047.13-.---	0.047.16-.---
40	0.048.13-.---	0.048.16-.---
50	0.049.13-.---	0.049.16-.---
63	0.050.13-.---	0.050.16-.---
80	0.051.13-.---	0.051.16-.---
100	0.052.13-.---	0.052.16-.---
125	0.033.13-.---	0.033.16-.---
160	0.034.13-.---	0.034.16-.---
200	-	0.035.16-.---
250	-	0.036.16-.---



With magnetic piston

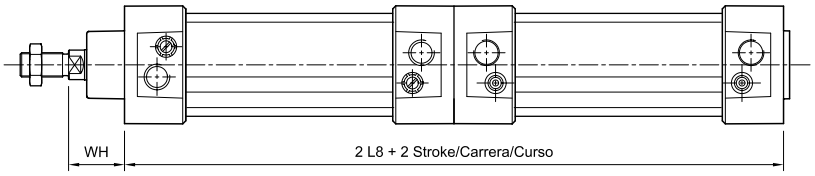
Ø	Non-cushioning	With cushioning
32	0.047.33-.---	0.047.36-.---
40	0.048.33-.---	0.048.36-.---
50	0.049.33-.---	0.049.36-.---
63	0.050.33-.---	0.050.36-.---
80	0.051.33-.---	0.051.36-.---
100	0.052.33-.---	0.052.36-.---
125	0.033.33-.---	0.033.36-.---
160	0.034.33-.---	0.034.36-.---
200	-	0.035.36-.---
250	-	0.036.36-.---

WH	L8
26	94
30	105
37	106
37	121
46	128
51	138
65	160
80	180
95	180
105	200

Tandem double acting cylinders

Without magnetic piston

Ø	Non-cushioning	With cushioning
32	0.047.07-.---	0.047.10-.---
40	0.048.07-.---	0.048.10-.---
50	0.049.07-.---	0.049.10-.---
63	0.050.07-.---	0.050.10-.---
80	0.051.07-.---	0.051.10-.---
100	0.052.07-.---	0.052.10-.---
125	0.033.07-.---	0.033.10-.---
160	0.034.07-.---	0.034.10-.---
200	-	0.035.10-.---
250	-	0.036.10-.---

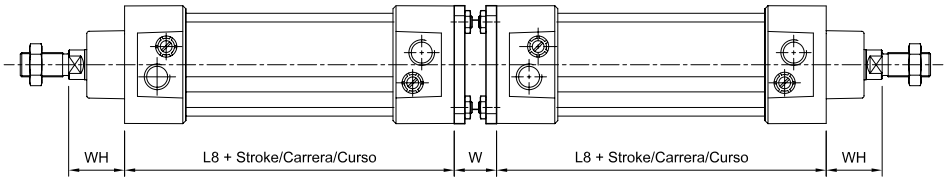


With magnetic piston

Ø	Non-cushioning	With cushioning	WH	L8
32	0.047.27-.---	0.047.30-.---	26	94
40	0.048.27-.---	0.048.30-.---	30	105
50	0.049.27-.---	0.049.30-.---	37	106
63	0.050.27-.---	0.050.30-.---	37	121
80	0.051.27-.---	0.051.30-.---	46	128
100	0.052.27-.---	0.052.30-.---	51	138
125	0.033.27-.---	0.033.30-.---	65	160
160	0.034.27-.---	0.034.30-.---	80	180
200	-	0.035.30-.---	95	180
250	-	0.036.30-.---	105	200

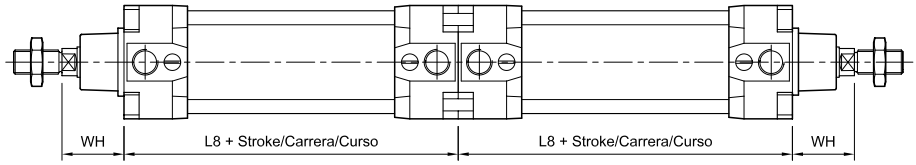
Duplex cylinder

For cylinders from 32 to 100 diameter, the code is only for the adapter kit. Both cylinders must be ordered separatelly by their own codes.



Ø	MiCRO	L8	WH	W
32	0.047.000.039	94	26	27
40	0.048.000.039	105	30	27
50	0.049.000.039	106	37	32
63	0.050.000.039	121	37	28
80	0.051.000.039	128	46	38
100	0.052.000.039	138	51	38

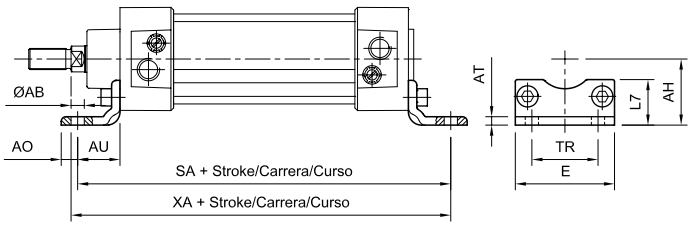
For cylinders 125 and 160 diameter, the codes are for the complete assembly (both cylinders are included).



Ø	Non-cushioning	With cushioning	Non-cushioning	With cushioning	WH	L8
125	0.033.03-.--- / 0.033.03-.---	0.033.06-.--- / 0.033.06-.---	0.033.23-.--- / 0.033.23-.---	0.033.26-.---/ 0.033.26-.---	65	160
160	0.034.03-.--- / 0.034.03-.---	0.034.06-.--- / 0.034.06-.---	0.034.23-.--- / 0.034.23-.---	0.034.26-.---/ 0.034.26-.---	80	180

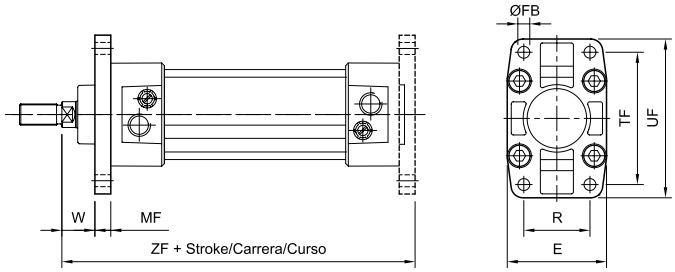
Foot mounting (pair)

Ø	MiCRO	ØAB	AH	AO	AT	AU	E	L7	SA	TR	XA
32	0.027.000.001	7	32	11	4	24	45	30	142	32	144
40	0.028.000.001	9	36	8	4	28	52	30	161	36	163
50	0.029.000.001	9	45	15	5	32	65	36	170	45	175
63	0.030.000.001	9	50	13	5	32	75	35	185	50	190
80	0.031.000.001	12	63	14	6	41	95	47	210	63	215
100	0.032.000.001	14	71	16	6	41	115	53	220	75	230
125	0.033.000.001	14	90	25	8	45	140	70	250	90	270
160	0.034.000.001	18	115	15	10	60	180	100	300	115	320
200	0.015.000.001	22	135	25	9	70	220	110	320	135	345
250	0.016.000.001	26	165	30	12	75	280	116	350	165	380



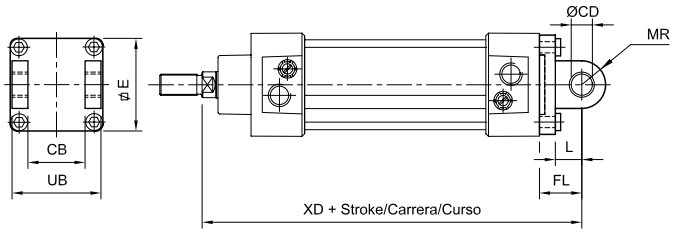
Flange mounting (front or rear)

Ø	MiCRO	E	ØFB	MF	R	TF	UF	W	ZF
32	0.027.000.003	50	7	10	32	64	82	16	130
40	0.028.000.003	57	9	10	36	72	93	20	145
50	0.029.000.003	68	9	12	45	90	110	25	155
63	0.030.000.003	81	9	12	50	100	120	25	170
80	0.031.000.003	101	12	16	63	126	150	30	190
100	0.032.000.003	121	14	16	75	150	180	35	205
125	0.033.000.003	140	16	20	90	180	205	45	245
160	0.034.000.003	180	18	20	115	230	260	60	280
200	0.015.000.003	220	22	25	135	270	315	70	300
250	0.016.000.003	280	26	25	165	330	380	80	330



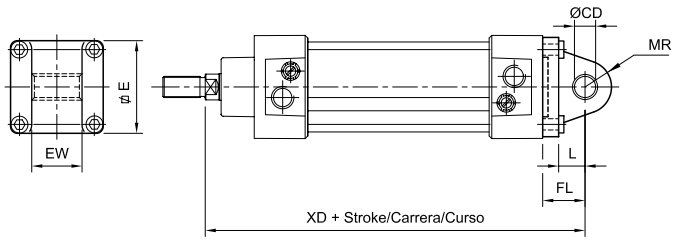
Female clevis mounting

Ø	MiCRO	CB	ØCD	E	FL	L	MR	UB	XD
32	0.027.000.004	26	10	48	22	12	11	44	142
40	0.028.000.004	28	12	55	25	15	13	51	160
50	0.029.000.004	32	12	65	27	15	13	59	170
63	0.030.000.004	40	16	78	32	20	17	69	190
80	0.031.000.004	50	16	96	36	20	17	89	210
100	0.032.000.004	60	20	116	41	25	21	108	230
125	0.033.000.004	70	25	140	50	30	26	128	275
160	0.034.000.004	90	30	178	57	35	33	170	317
200	0.015.000.004	90	30	220	60	35	31	170	335
250	0.016.000.004	110	40	280	70	44	41	200	375



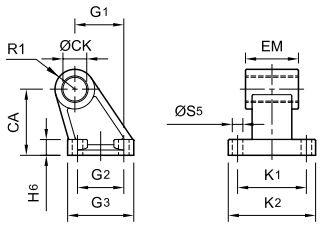
Male clevis mounting

Ø	MiCRO	ØCD	E	EW	FL	L	MR	XD
32	0.027.000.005	10	48	26	22	12	11	142
40	0.028.000.005	12	55	28	25	15	13	160
50	0.029.000.005	12	65	32	27	15	13	170
63	0.030.000.005	16	78	40	32	20	17	190
80	0.031.000.005	16	96	50	36	20	17	210
100	0.032.000.005	20	116	60	41	25	21	230
125	0.033.000.005	25	140	70	50	30	26	275
160	0.034.000.005	30	178	90	57	35	33	317
200	0.015.000.005	30	220	90	60	35	31	335
250	0.016.000.005	40	280	110	70	44	41	375



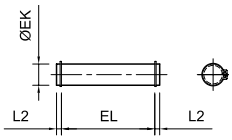
Clevis foot mounting

Ø	MiCRO	CA	ØCK	EM	G_1	G_2	G_3	H_6	K_1	K_2	R_1	$ØS_5$
32	0.027.000.006	32	10	26	21	18	31	8	38	50	10	6,6
40	0.028.000.006	36	12	28	24	22	35	10	41	53	11	6,6
50	0.029.000.006	45	12	32	33	30	45	12	50	64	13	9
63	0.030.000.006	50	16	40	37	35	50	12	52	66	15	9
80	0.031.000.006	63	16	50	47	40	60	14	66	85	15	11
100	0.032.000.006	71	20	60	55	50	70	15	76	94	19	11
125	0.033.000.006	90	25	70	70	60	90	20	94	122	22,5	14
160	0.034.000.006	115	30	90	97	88	126	25	118	153	31,5	14



Pivot pin and retainers

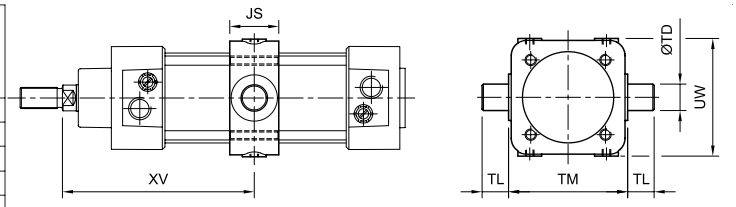
Ø	MiCRO	ØEK	EL	L2
32	0.007.000.007	10	45,5	3,25
40	0.008.000.007	12	52,5	3,25
50	0.009.000.007	12	60,5	3,25
63	0.010.000.007	16	70,6	3,7
80	0.011.000.007	16	90,6	3,7
100	0.012.000.007	20	110,7	4,15
125	0.013.000.007	25	130,7	4,15
160	0.014.000.007	30	170,8	4,6
200	0.015.000.007	30	170	-
250	0.016.000.007	40	200	-



Trunnion mounting

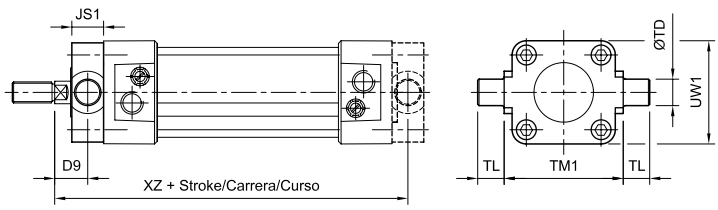
Ø	MiCRO	XV min.	XV max.+ carrera	TM	TL	UW	ØTD	JS
32	0.027.000.009	66	80	50	12	52	12	22
40	0.028.000.009	77	88	63	16	64	16	28
50	0.029.000.009	84	96	75	16	78	16	28
63	0.030.000.009	96	99	90	20	89	20	36
80	0.031.000.009	106	114	110	20	112	20	36
100	0.032.000.009	118	122	132	25	130	25	44
125	0.013.000.024	144	146	160	25	158	25	48
160	0.034.000.009	168	172	200	32	200	32	60

This mounting accessorie requieres a cylindrical tube in the cylinder.
Consider this issue when ordering.



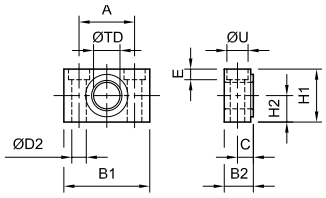
Front or rear trunnion mounting

Ø	MiCRO	D_9	JS_1	ØTD	TL	TM_1	UW_1	XZ
32	0.027.000.008	18	16	12	12	50	48,6	128
40	0.028.000.008	20	20	16	16	63	54,7	145
50	0.029.000.008	25	24	16	16	75	66,8	155
63	0.030.000.008	25	24	20	20	90	77,8	170
80	0.031.000.008	32	28	20	20	110	98	188
100	0.032.000.008	32	38	25	25	132	120	208
125	0.033.000.008	40	50	25	25	160	145	250
160	0.034.000.008	50	60	32	32	200	185	290



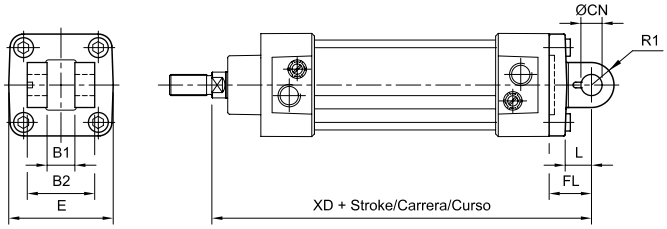
Trunnion mounting feet (pair)

Ø	MiCRO	A	B_1	B_2	C	$ØD_2$	E	H_1	H_2	ØTD	U
32	0.027.000.014	32	46	18	10,5	6,6	7	30	15	12	11
40	0.028.000.014	36	55	21	12	9	9	36	18	16	15
50	0.028.000.014	36	55	21	12	9	9	36	18	16	15
63	0.030.000.014	42	65	23	13	11	11	40	20	20	18
80	0.030.000.014	42	65	23	13	11	11	40	20	20	18
100	0.032.000.014	50	75	28,5	16	14	13	50	25	25	20
125	0.032.000.014	50	75	28,5	16	14	13	50	25	25	20
160	0.034.000.014	60	92	40	22,5	18	17	60	30	32	26



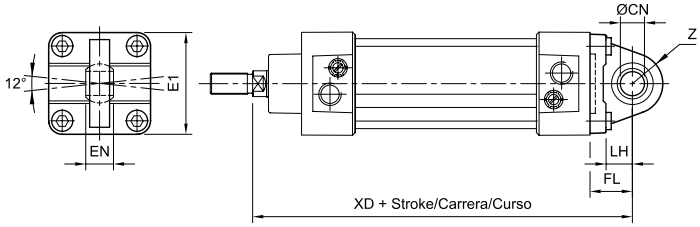
Narrow female clevis mounting

Ø	MiCRO	B_1	B_2	ØCN	E	FL	L	R_1	XD
32	0.027.000.032	14	34	10	45	22	12	11	142
40	0.028.000.032	16	40	12	55	25	15	13	160
50	0.029.000.032	21	45	16	65	27	17	13	170
63	0.030.000.032	21	51	16	75	32	20	17	190
80	0.031.000.032	25	65	20	95	36	20	17	210
100	0.032.000.032	25	75	20	115	41	25	21	230
125	0.033.000.032	37	97	30	140	50	30	26	275
160	0.034.000.032	43	122	35	183	55	21,5	32	315



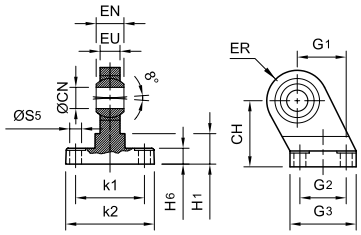
Narrow male clevis mounting with spherical bearing

Ø	MiCRO	ØCN	E_1	EN	FL	LH	XD	Z
32	0.027.000.013	10	45	14	22	12	142	15
40	0.028.000.013	12	55	16	25	15	160	18
50	0.029.000.013	16	65	21	27	17	170	20
63	0.030.000.013	16	75	21	32	20	190	23
80	0.031.000.013	20	95	25	36	22	210	27
100	0.032.000.013	20	115	25	41	25	230	30
125	0.033.000.013	30	140	37	50	30	275	40
160	0.034.000.013	35	178	43	56,5	35	316,5	44



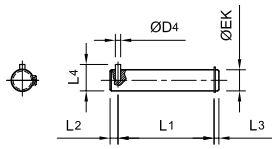
Narrow clevis foot mounting with spherical bearing

Ø	MiCRO	CH	ØCN	EN	ER	EU	G_1	G_2	G_3	H_1	H_6	K_1	K_2	$ØS_5$
32	0.027.000.031	32	10	14	15	10,5	21	18	31	16	10	38	51	6,6
40	0.028.000.031	36	12	16	18	12	24	22	35	16	10	41	54	6,6
50	0.029.000.031	45	16	21	20	15	33	30	45	23	12	50	65	9
63	0.030.000.031	50	16	21	23	15	37	35	50	23	12	52	67	9
80	0.031.000.031	63	20	25	27	18	47	40	60	32	14	66	86	11
100	0.032.000.031	71	20	25	30	18	55	50	70	33	15	76	96	11
125	0.033.000.031	90	30	37	25	40	70	60	90	50	20	94	124	14
160	0.034.000.031	115	35	43	28	44	97	88	126	70	25	118	156	14

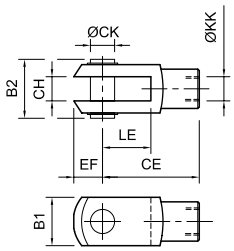


Narrow pivot pin and retainers

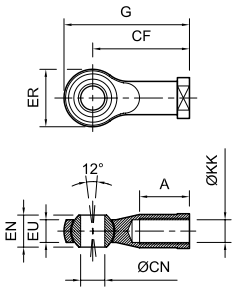
Ø	MiCRO	ØEK	ØD4	L1	L2	L3	L4
32	0.027.000.033	10	3	32,5	4,5	4	14
40	0.028.000.033	12	4	38	6	4	16
50	0.029.000.033	16	4	43	6	5	20
63	0.030.000.033	16	4	49	6	5	20
80	0.031.000.033	20	4	63	6	6	24
100	0.032.000.033	20	4	73	6	6	24
125	0.033.000.033	30	6	94	9	7	36
160	0.034.000.033	35	6	119	9	7	41



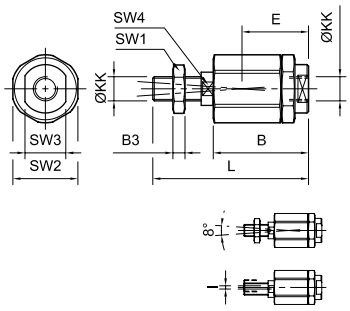
Rod clevis



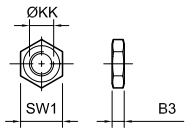
Rod eye



Self aligning rod coupler



Piston rod nuts



	MiCRO
M10 x 1,25	0.007.000.010
M12 x 1,25	0.008.000.010
M16 x 1,5	0.009.000.010
M20 x 1,5	0.011.000.010
M24 x 2	0.013.000.010
M27 x 2	0.033.000.010
M36 x 2	0.014.000.010
M42 x 2	0.016.000.010

	MiCRO
M10 x 1,25	0.007.000.012
M12 x 1,25	0.008.000.012
M16 x 1,5	0.009.000.012
M20 x 1,5	0.011.000.012
M24 x 2	0.013.000.012
M27 x 2	0.033.000.012
M36 x 2	0.034.000.012

	MiCRO
M10 x 1,25	0.007.000.023
M12 x 1,25	0.008.000.023
M16 x 1,5	0.009.000.023
M20 x 1,5	0.011.000.023
M24 x 2	0.013.000.023
M27 x 2	0.033.000.023
M36 x 2	0.014.000.023

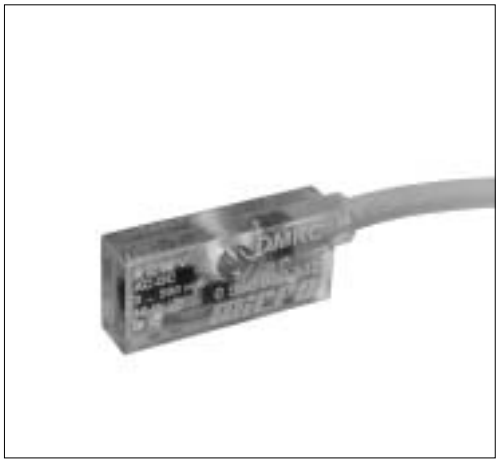
	MiCRO
M10 x 1,25	0.007.000.011
M12 x 1,25	0.008.000.011
M16 x 1,5	0.009.000.011
M20 x 1,5	0.011.000.011
M24 x 2	0.013.000.011
M27 x 2	0.033.000.011
M36 x 2	0.014.000.011
M42 x 2	0.016.000.011

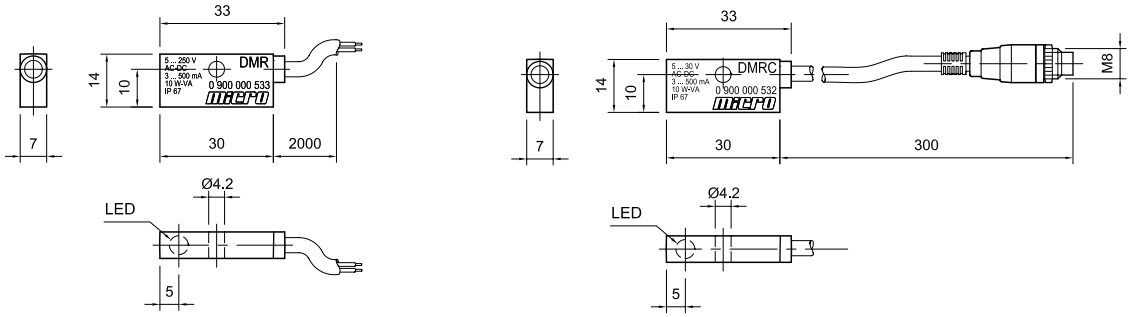
ØKK	A	B	B_1	B_2	B_3	ØCN	CE	CF	CH	ØCK	E	EF	EN	EU	ER	G	I	L	LE	SW_1	SW_2	SW_3	SW_4
M10 x 1,25	21	46	20	25	5	10	40	43	10	10	31	12	14	10,5	28	57	2	71	20	16	30	19	12
M12 x 1,25	24	46	24	30	6	12	48	50	12	12	32	14	16	12	32	66	2	75	24	18	30	19	12
M16 x 1,5	33	63	32	39	8	16	64	64	16	16	44	19	21	15	42	85	2	103	32	24	41	30	19
M20 x 1,5	40	71	40	48	10	20	80	77	20	20	53	25	25	18	50	102	2	119	40	30	41	30	19
M27 x 2	51	104	55	65	12	30	110	110	30	30	76	38	37	25	70	145	4	170	54	41	-	-	32
M36 x 2	56	122	70	78	18	35	144	125	35	35	93	44	43	-	-	-	4	205	72	50	-	-	32
M42 x 2	-	-	85	-	21	-	168	-	40	40	-	77	-	-	-	-	-	-	84	65	-	-	-

Proximity switch DMR series

Type	Voltage	Current	Power	LED	Degree of protection	MiCRO
DMR	5...250 V AC/DC	3...500 mA	10 W/VA	●	IP 67	**0.900.000.533**
DMRC	5...30 V AC/DC	3...500 mA	10 W/VA	●	IP 67	**0.900.000.532**
2 m cable lenght with female M8x1 connector						**0.900.000.531**

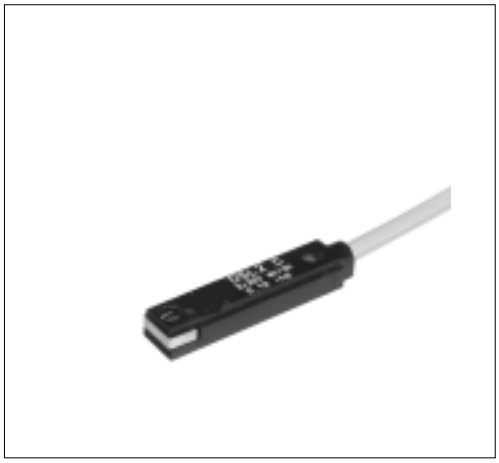
DMR model has 3 m lenght cable; DMRC model has 300mm lenght cable with M8x1 male connector.
With polarity reversal protection (the sensor detects but the LED does not light).
For mounting brackets, see page 1.3.0.9.





Proximity switch DSL series

Type ..... Magnetic field actuated proximity switch
Versions ..... Reed-switch (2 cables) or Hall effect (3 cables)
Output type ..... PNP (Hall effect version)
Electrical data ..... See table below
Degree of protection ..... IP 67
Protection ..... Polarity reversal, over-voltage waves (Hall effect version)
Contact ..... Normally open
State indicator ..... LED
Rated temperature ..... -20...85 °C (-4...185 °F)
Connection ..... Cable or M8x1 connector
Mounting ..... Direct over cylinder groove, mounting bracket is included

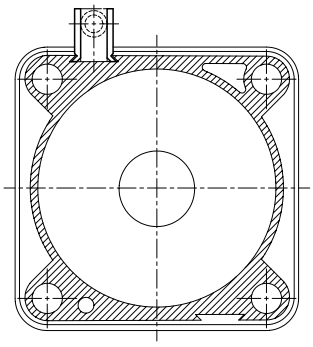


Type	Switching type	Voltage	Current	Power	Response time	Lifetime (in millons)	Connection Cable	Connection M8 Connector	Cable	MiCRO
DSL 1	Reed-Switch	3...30 V ca/cc	100 mA	6 W / VA	0,5 ms	10	●		2,5 m	**0.900.000.791**
DSL 2	Reed-Switch	3...30 V ca/cc	100 mA	6 W / VA	0,5 ms	10		●	0,3 m	**0.900.000.792**
DSL 4	Hall	6...30 Vcc	200 mA	4 W / VA	0,8 ms	100	●		2,5 m	**0.900.000.793**
DSL 3	Hall	6...30 Vcc	200 mA	4 W / VA	0,8 ms	100		●	0,3 m	**0.900.000.794**
2m lenght cable with female M8x1 connector										**0.900.000.531**

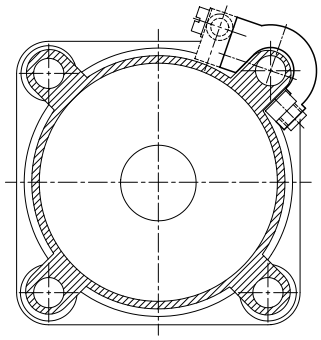
Proximity switch mounting bracket - DMR series

Ø	Bracket for profiled tube
32...100	0.047.000.017
125	0.033.000.017
160	0.034.000.017

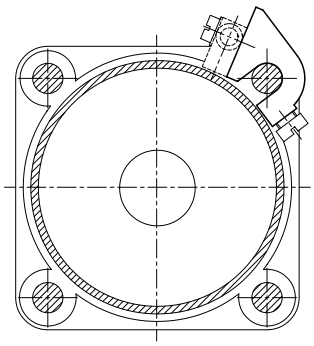
Ø	Bracket for cylindrical tube
32-40	0.007.000.017
50-63	0.009.000.017
80-100	0.011.000.017
125	0.013.000.017
160	0.014.000.017
200	0.014.000.017
250	0.016.000.017



Ø32...Ø100



Ø125...Ø160



Ø200...Ø250
(Ø32...Ø250 with cylindrical tube)

Cylinders spare kits

Ø	Spare kit for single or double acting cylinder (1)	Adjustable cushioning spare kit (2)	Piston magnetic ring
32	0.047.000.101	0.047.000.102	0.047.000.103
40	0.048.000.101	0.048.000.102	0.048.000.103
50	0.049.000.101	0.049.000.102	0.049.000.103
63	0.050.000.101	0.050.000.102	0.050.000.103
80	0.051.000.101	0.051.000.102	0.051.000.103
100	0.052.000.101	0.052.000.102	0.052.000.103
125	0.033.000.101	0.013.000.102	0.013.000.103
160	0.034.000.101	0.034.000.102	0.014.000.103
200	0.015.000.101		0.015.000.103
250	0.016.000.101		0.016.000.103

(1) For cylinders with or without adjustable cushioning.
(2) Kit for ''one'' adjustable cushioning system; if the cylinder is double cushioning two kits must be ordered.

MiCRO

ISO 6431 - VDMA 24562 Cylinders

CN 10 Series
Piston rod clamping unit

Type ..... Clamping device for VDMA 24562 standard cylinders

Locking force ..... Guaranted by an internal spring, acts by abscense of pneumatic signal. The clamping force is released by applying air pressure

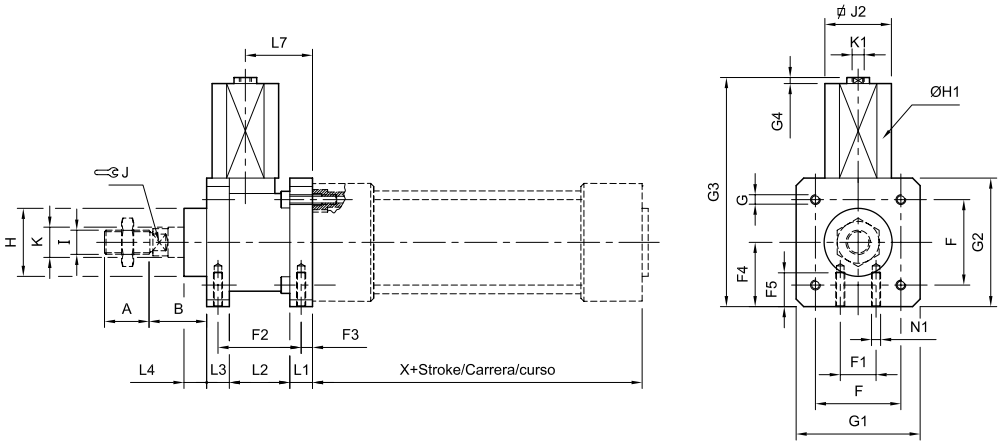
Working pressure ..... 4,5...10 bar

Mounting ..... Compatible holes with series mounting accessories

IMPORTANT ..... When ordering, consider that the cylinder has to be made specially whith an extended piston rod.
The cylinder must be ordered separatelly by its own code.
We advice to order both components already mounted.

Ø	MiCRO	Clamping force (N)
32	0.027.000.034	600
40	0.028.000.034	1000
50	0.029.000.034	1500
63	0.030.000.034	2200
80	0.031.000.034	3000
100	0.032.000.034	5000
125	0.033.000.034	7000

Advantages:
- Automatic secure clamping in case of power failure. The clamping force is always greater than the cylinder force.
- Holding and precision clamping over a long period of time even if changing loads, fluctuation in the operating pressure or leckage.
- During clamping, it is recommended that air pressure be equal in both cylinder chambers.
- It is recommended to reduce piston rod speed before acting the clamping unit.



Ø	A	B	F	F_1	F_2	F_3	F_4	F_5	G	G_1	G_2	G_3	G_4	ØH	$ØH_1$	Ø I	J	J_2	ØK	K_1	L_1	L_2	L_3	L_4	L_7	N_1	X
32	22	26	32,5	16	40	4,2	25	8	M6	48	50	96	4	30	27,5	M10 x 1,25	10	22,7	12	M5	8	28	12	10	32	M5	94
40	24	30	38	21	46	4,5	29	10	M6	56	58	103	4	35	31,5	M12 x 1,25	13	27,7	16	M5	10	33	12	10	35,5	M5	105
50	32	37	46,5	24	54	11,5	35	12	M8	68	70	127	4	40	36	M16 x 1,5	16	32,7	20	G1/8"	15	39	16	12	47	M6	106
63	32	37	56,5	32	55	7,5	42,5	14	M8	82	85	151,5	4	45	44	M16 x 1,5	16	41	20	G1/8"	15	40	15	12	49	M8	121
80	40	46	72	44	70	10	52,5	16	M10	99	104	181,5	4	45	53	M20 x 1,5	21	49,7	25	G1/8"	16	58	16	20	62	M8	128
100	40	51	89	60	70	10	65	16	M10	120	129	207	4	55	58	M20 x 1,5	21	54,7	25	G1/8"	16	58	20,5	20,5	67	M8	138
125	54	65	110	75	95	11	75	20	M12	140	149	227	4	60	67,5	M27 x 2	27	64,9	32	G1/8"	25	70	27	32	85	M10	160

Type ..... The guide unit is used to secure VDMA 24562 standard cylinders against piston rod rotation and from powerful torques. It offers highly precise guidance when conveying work pieces and for other uses (handling technology)

Guide ..... Self lubricated brass bushings with cleaning rod wipers (option with ball bearing)

Mounting ..... Mounting holes in four faces, pattern holes according most mounting accessories

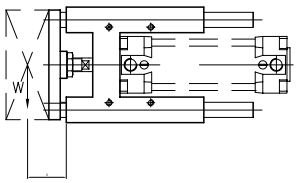
Maximum stroke ..... 500 mm

Rod connection ..... Floating with axial compensation

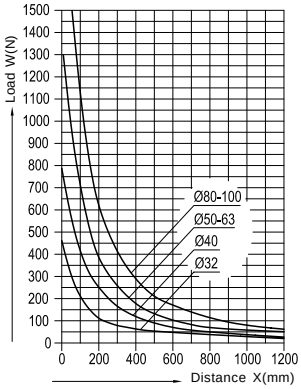
Materials ..... Anodized alluminum housing, chrome plated steel guide bars (tempered steel for ball bearing version), brass guide bushings

IMPORTANT ..... The cylinder must be ordered separatelly by its own code

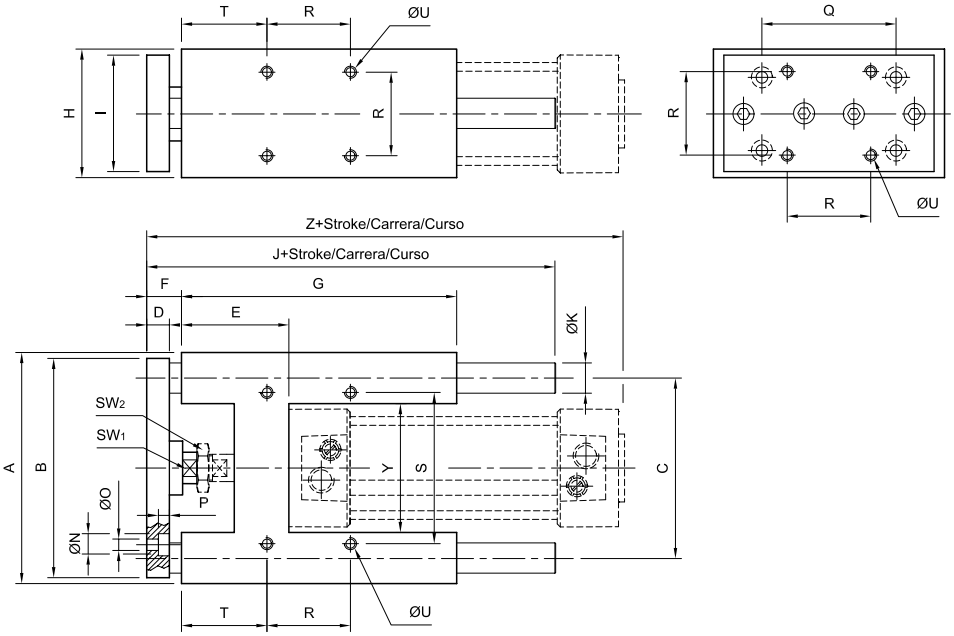
When ordering replace dashes by stroke value in mm, completing with zeros at the left if stroke is less than 4 digits. i.e.: a H-guide with brass bushings for a cylinder 0.047.030.100 must be ordered as 0.027.980.100

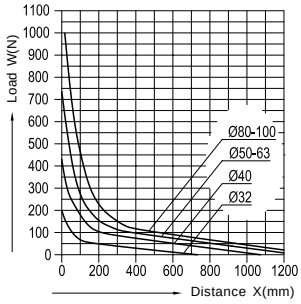


Ø	Brass bushing guide	Ball bearing guide
32	0.027.98-.---	0.027.99-.---
40	0.028.98-.---	0.028.99-.---
50	0.029.98-.---	0.029.99-.---
63	0.030.98-.---	0.030.99-.---
80	0.031.98-.---	0.031.99-.---
100	0.032.98-.---	0.032.99-.---



Brass bushing H guides





Ball bearing H guides

Ø	A	B	C	D	E	F	G	H	I	J	ØK	ØN	ØO	P	Q	R	S	SW_1	SW_2	T	ØU	Y	Z
32	97	90	74	12	49	15	125	49	45	177	12	10,5	6,5	6,5	78	32,5	61	13	16	44,7	M 6	50	158
40	115	110	87	15	58	16	139	58	54	192	16	10,5	6,5	6,5	84	38	69	15	18	47	M 6	58	179
50	137	130	104	15	70	19	149	69	63	205	20	13,5	8,5	9	100	46,5	85	22	24	51,2	M 8	70	195
63	152	145	119	15	71	17	182	85	79	237	20	13,5	8,5	9	105	56,5	100	22	24	55,7	M 8	85	209
80	189	180	148	20	87	23	215	105	99	280	25	18	11	11	130	72	130	27	30	66	M 10	105	238
100	213	200	172	20	92	23	220	129	120	280	25	18	11	11	150	89	150	27	30	67,5	M 10	130	253

MiCRO

Impact cylinder

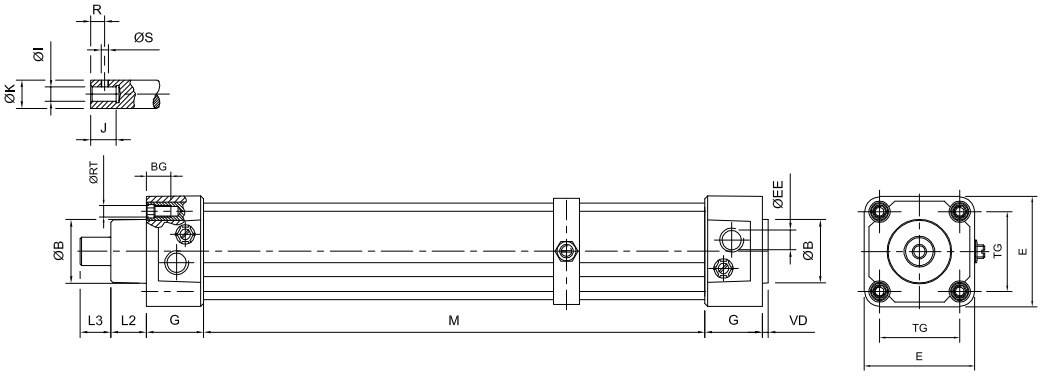
CN10 series

Type	Pneumatic impact cylinder with high kinetic energy		
Rated temperature	-20...80 °C (-4...176 °F)		
Fluid temperature	Max. 80 °C (176 °F)		
Fluid	Filtered compressed air with or without lubrication		
Working pressure	2...10 bar (29...145 psi)		
Command circuits	Manual, semi-automatic or automatic		
Piston diameter	Ø 50	Ø 80	Ø 100
Energy	24 Nm	78 Nm	112 Nm
Frequency	Max. 2 Hz		
Stroke	190 mm free stroke; maximum energy is achieved at 80mm stroke		
Materials	Aluminum pressure die cast end caps and piston, tempered and carburized SAE 1040 steel rod, aluminum profiled tube, polyurethane seals		

Energy values shown below were obtained with 6 bar and 80mm free stroke.

Ø		*Spare kit*
50	0.049.500.000	0.049.000.105
80	0.051.500.000	0.051.000.105
100	0.052.500.000	0.052.000.105

ØB	BG	G	E	ØEE	Ø I	J	Ø K	L2	L3	M	N	R	ØRT	ØS	TG	VD
40	17,5	33	65	G 1/4"	10	18	20	25	25	348	290	10	M8x1,25	M5x0,8	46,5	4
45	18,5	42	96	G 3/8"	16	27	25	32	28	366	309	15	M10x1,5	M6x1	72	4
55	18,5	45	116	G 1/2"	20	32	25	37	33	373	317	17,5	M10x1,5	M8x1,25	89	4

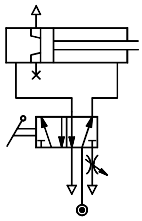


Necessary energy for punching holes

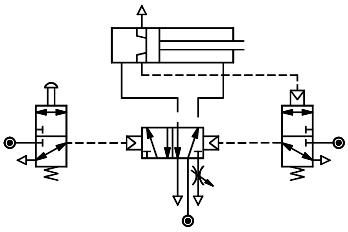
$E = 3{,}14 \cdot D \cdot E^2 \cdot T \cdot K \cdot 10^{-3}$

E: Necessary energy (Nm)
D: Hole bore (mm)
E: Sheet thickness (mm)
T: Material shear resistance (N/mm^2)
K: Constant (for metals 0,5)

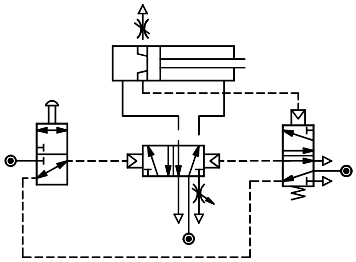
Note: an impact cylinder must be over-dimensioned by 50% against calculation.



Manual circuit



Semi-automatic circuit



Automatic circuit